REMARKS

Claims 45-64 have been amended. Claims 1-64 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Objection to the Specification:

The Examiner objected to the specification as failing to provide proper antecedent basis for the claimed subject matter. Specifically, the Examiner requested correction of the following:

(i) The Examiner again submits that the cited portions of Applicants' specification do not provide clear antecedent basis for the limitation of "separately from the network transport protocols" in the passages cited by Applicants. Applicants' specification states, "the peer-to-peer platform is preferable transport protocol independent" (page 22, lines 23-24). The specification also describes that "[t]he core components of the peer-to-peer protocol may be used to implement discovery mechanisms for searching, publishing and recovering of core abstractions" and that these mechanisms "may allow processes in the peer-to-peer network, in absence of help from other applications and/or services, to bootstrap and find out the information necessary to access applications and services that can help" (emphasis added, page 21, lines 1-7). Furthermore, the specification section regarding "Reliable Connection" describing "mechanisms to implement reliable communications channels between peers" describes the retransmission of lost or dropped message and describes a mechanism that "may provide reliable delivery of messages over a network connection *regardless of the implementation of that connection*" (pages 51-58; and esp. page 53, lines 22-30) (emphasis added).

Thus, Applicants submit the specification provides clear support for the limitation regarding performing establishing, transmitting, receiving, and retransmitting according

to the peer-to-peer platform protocols and separately from the network transport protocols.

(ii) The Examiner submits that the limitation of "article of manufacture," in claims 45-64, lacks sufficient antecedent basis in the specification. Applicants have amended claims 45-64 to recite instead, "a computer-readable storage medium." As noted by the Examiner, the specification includes a description of such storage media and lists various examples of storage media, all of which involve statutory subject matter (and may also be "articles of manufacture").

Section 101 Rejection:

The Examiner rejected claims 45-64 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Specifically, the Examiner submits that the claims may be interpreted as software instructions per se since the article of manufacture does not comprise functional hardware. Applicants respectfully traverse this rejection. An article of manufacture, by definition, is a real-word, man-made article, and is one of the explicit statutory classes listed in § 101. However, to expedite prosecution, claims 45-64 have been amended to recite a computer-readable storage medium. Applicants respectfully request removal of the rejection of claims 45-64 under 35 U.S.C. § 101.

Section 103(a) Rejections:

The Examiner rejected claims 1-3, 5-7, 11-15, 18, 21 and 22 under 35 U.S.C. § 103(a) as being unpatentable over Davis et al. (U.S. Patent 6,105,064) (hereinafter "Davis") in view of Dreke et al. (U.S. Publication 2002/0035594) (hereinafter "Dreke") and Narisi et al. (U.S. Patent 6,233,619) (hereinafter "Narisi"), claims 4 and 8-10 as being unpatentable over Davis, Dreke and Narisi in view of Barker et al. (U.S. Patent 5,931,916) (hereinafter "Barker"), claims 16 and 17 as being unpatentable over Davis, Dreke and Narisi in view of Ivanoff (U.S. Patent 5,517,622), claims 19 and 20 as being unpatentable over Davis, Dreke and Narisi in view of Antur et al. (U.S. Patent 6,212,558)

(hereinafter "Antur"), claims 23 and 24 as being unpatentable over Davis, Dreke and Narisi in view of Zhu et al. (U.S. Patent 5,768,557) (hereinafter "Zhu"), claims 25-27, 29-31, 35-40, 43, 45-47, 49-51, 55-60 and 63 as being unpatentable over Davis in view of Dreke, claims 28, 32-34, 48 and 52-54 as being unpatentable over Davis and Dreke in view of Barker, claims 41, 42, 61 and 62 as being unpatentable over Davis and Dreke in view of Antur, and claims 44 and 64 as being unpatentable over Davis and Dreke in view of Zhu. Applicants respectfully traverse these rejections for at least the following reasons.

Regarding claim 1, contrary to the Examiner's assertion, Davis in view of Dreke and Narisi fails to teach or suggest *wherein the plurality of peer nodes is configured to implement a peer-to-peer environment on the network according to a peer-to-peer platform comprising one or more peer-to-peer platform protocols for enabling the plurality of peer nodes to discover each other, communicate with each other, and share content in the peer-to-peer environment, wherein to discover comprises obtaining an address for each discovered peer node*. The Examiner submits that Davis teaches substantially the invention as claimed in column 8, lines 21-24 (peer-to-peer network); column 75, lines 3-5 (sending endnode request connection with receiving endnode); and column 9, lines 5-8 and 23-34 (establish connection for sending data). These passages merely state that a given computer "may also function as a peer in a peer-to-peer network"; that a request is sent from one node to request a connection with another; that a sending endnode and a receiving endnode "contain software controlling a computer" as a means for establishing a network communication session, for monitoring such sessions, etc.; and that the term "connection" refers to the communications channel established between a service on one endnode and a corresponding service on another endnode. **However, Applicants assert that Davis, Dreke, and Narisi do not describe the particular peer-to-peer platform protocols recited in claim 1.** For example, nowhere do these references describe any peer-to-peer platform protocols for enabling peers to discover each other, much less the specific limitation *wherein to discover comprises obtaining an address for each discovered peer node*. Davis (which the Examiner relies on as teaching a peer-to-peer discovery protocol) is not concerned with peer discovery at

all. Instead, Davis is concerned with dynamically adjusting the propagation rate of packets between known sending and receiving nodes. Davis does not mention anything about endnodes discovering each other or about any peer-to-peer platform protocols that enable Davis's endnodes to discover each other. Instead, Davis teaches the use of protocols such as TCP, UDP, SPX, IP, IPX and ATM, none of which enable peer nodes to discover each other. For instance, Davis teaches that a channel may be established between a service on one endnode and a corresponding service on another endnode. Specifically, Davis teaches that one endnode will register itself as a service and a second application on the same or on another endnode asks to connect to that name and service type. However, the mere fact that a channel may be established between two endnodes does not imply that the two nodes are "enabled to discover each other". As is well known in the art, two computer systems (e.g. endnodes) may communicate without discovering each other via a peer-to-peer platform protocol, or any particular protocol. For example, nodes may already be configured with an address for another node, or obtain an address in a way that does not involve a discovery protocol, let alone a peer-to-peer discovery protocol.

The Examiner admits that Davis does not teach *wherein to discover comprises obtaining an address for each discovered peer node* and relies on Dreke to teach this limitation in paragraph [0017], "Dreke teaches of peers obtaining IP addresses of interested peers." However, this passage clearly does not teach a peer-to-peer discovery protocol that comprises obtaining an address for each discovered peer. Instead, this passage describes three client computers establishing a connection through an Internet Presence Information Server (IPIS), "In 301, Peer A first transmits to IPIS 4 the following information: his/her newly assigned network (Internet Provider (IP)) address; a list of peers whose Internet presence are of interest to Peer A; and a request for a list of peers who are interested in the Internet presence of Peer A. In this example, the list transmitted by Peer A includes Peer B and Peer C. In 302, IPIS 4 responds to Peer A's list by transmitting a list including the last known address, such as an IP addresses for Peer B and Peer C even though the IP address for Peer B is out of date. During 302, IPIS 4 also responds to Peer A's request for a list of peers interested in Peer A's presence with a

message indicating no peers are currently interested in his/her presence. Once IPIS 4 transmits these lists to Peer A, Peer A will no longer communicate with IPIS 4 during this network session." **This clearly does not describe a "discovery" mechanism that is implemented by the peers according to a peer-to-peer discovery protocol.** Instead this describes a mechanism to establish a connection between two known peers, in which locating the peers and establishing the connection are managed by the IPIS server. Therefore, Dreke clearly does not overcome the deficiency of Davis in teaching the above-referenced limitation.

The concept of discovery has a specific meaning and is well understood in the art of network computing, as is the concept of peer-to-peer. None of the protocols discussed in Davis or Dreke are for peer nodes to discover one another. By definition, the centralized IPIS sever mechanism of Dreke does not involve a peer-to-peer discovery protocol.

Furthermore, claim 1 does not recite merely that the nodes are enabled to discover each other. Instead, claim 1 recites particular peer-to-peer platform protocols for enabling the plurality of peer nodes to discover each other, communicate with each other, and share content in the peer-to-peer environment, wherein to discover comprises obtaining an address for each discovered peer. **There are many ways that a device may obtain an address for another device that do not involve a peer-to-peer discovery protocol, such as that described in Dreke.** Davis and Dreke, whether considered singly or combination, clearly do not describe the peer-to-peer discovery protocol of Applicants' claim 1.

The Examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Davis and Dreke for peers to obtain the IP addresses of other peers, which would enhance the system of Davis by providing the peers with presence information to contact other peers. Applicants assert, however, that the system of Davis already includes mechanisms for endnodes to contact each other, and the Examiner has not cited anything in the references

to suggest that the system of Davis would benefit from the particular methods of obtaining presence information taught in Dreke. Furthermore, the system of Dreke does not use a peer-to-peer discovery protocol to obtain presence information about peers, but an Internet Presence Information Server. Therefore, even if the teachings of Dreke were incorporated into the system of Davis, the result would not teach the above-referenced limitations of Applicants' claim 1.

Further regarding claim 1, contrary to the Examiner's assertion, Davis in view of Dreke and Narisi fail to teach or suggest *wherein said establishing, said transmitting, said receiving, and said retransmitting are performed according to at least one of the one or more peer-to-peer platform protocols and separately from the at least one network transport protocols*. The Examiner admits that Davis and Dreke do not teach this limitation and relies on Narisi to teach it. The Examiner submits, "Narisi teaches of heterogeneous systems (also considered as peers, col. 19, line 60 – col. 20, line 5) communicating in a message system that is independent of communication protocols (claims 1, 3, and 7)." However, Narisi is not directed to peer nodes coupled to a network and communicating over the network at all, much less according to the specific peer-to-peer protocols of Applicants' claims. Instead, Narisi is directed to "Methods and apparatus that enable network applications executing on respective directly interconnected computer systems to communicate at high speed, with low latency, over the interconnection therebetween such that both systems may use their native mechanisms to communicate with each other without change in those mechanisms, rather than over conventional network communication paths such as Ethernet."

The Examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Davis, Dreke, and Narisi "for peers to communicate independent of communications protocols. The teachings of Narisi would enhance the system of Davis and Dreke by providing reliable and transparent transfer of data between different heterogeneous environments." **Applicants assert, however, that since the teachings of Narisi are only applicable to directly interconnected computer systems, they could not be applied to the system of**

Davis and Dreke without completely changing the principles of operation of the system of David and Dreke. Furthermore, a system applying the teachings of Narisi (communicating only over direct interconnections between nodes) **teaches away from** the claimed invention, which recites *A peer computing system, comprising: a plurality of peer nodes operable to couple to a network, wherein each of the plurality of peer nodes comprises one or more network interfaces, wherein each network interface is configured to communicate over the network in accordance with at least one of one or more network transport protocols*.

Applicants remind the Examiner that to establish a *prima facie* obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP 2143.03. Obviousness cannot be established by combining or modifying the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion or incentive to do so. *In re Bond,* 910 F. 2d 81, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990). The cited art does not teach or suggest all limitations of the claim 1, nor has the Examiner provided sufficient motivation to combine the references. In addition, it does not appear that the Examiner's suggested combination is technically feasible, but if it were so, it would teach away from the limitations recited in claim 1.

For at least the reasons above, the rejection of claim 1 is not supported by the cited art and removal thereof is respectfully requested.

Claims 25 and 45 include limitations similar to those discussed above, including *wherein to discover comprises obtaining an address for each discovered peer node*. As discussed above, Davis in view of Dreke clearly fails to teach or suggest this limitation.

For at least the reasons above, the rejection of claims 25 and 45 is not supported by the cited art and removal thereof is respectfully requested.

Applicants also assert that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the rejection has been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

Applicants respectfully submit that the application is in condition for allowance, and prompt notice to that effect is respectfully requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-07400/RCK.

Respectfully submitted,

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